a part of a long-period deficiency cycle. The summary of his conclusions are as follows: "1. There has been no material change in the mean climatic conditions of Southern California in the past 162 years. 2. There have been earlier fluctuations from average rainfall conditions, however, both excesses and deficiencies, of greater magnitude than any which have occurred in the past forty years. 3. The twenty-eight year period of rainfall deficiency which ended in 1810 was about as severe as has been the present one to date, and much more protracted. 4. The period of rainfall surplus from 1810 to 1821 was more intense than anything in the past forty years. It seems to have been about as intense as was that between 1883 and 1893. 5. The period of rainfall deficiency which lasted from about 1822 to 1832 was more severe than has been any occurring since. 6. The period of rainfall deficiency which commenced in 1842 and lasted until 1883 was much longer than any other of which we have record. It was not so acute, however, as some others, both earlier and later. It was broken by a period of normal rainfall, but was without any period of excess rainfall to balance the deficiency. 7. In comparison with several periods of rainfall shortage which have occurred in past years, the present rainfall deficiency to date cannot be considered a major shortage. 8. For all practical purposes the useful water yield of the areas under consideration closely approximates the run-off from the principal streams of these areas, except in times of heavy floods. 9. The run-off from Southern California streams has in general shown fluctuations from the normal similar in character to those of the rainfall, but larger in relative percentage. 10. By reason of these fluctuations, the useful water yield has at various times been reduced from the average by considerably more than one-half for a period of ten years, and by thirty per cent for a period of twenty-eight years."—W. L. Jepson.

NOTES AND NEWS

Mr. H. L. Mason delivered a lecture at the California Academy of Sciences on the evening of November 4, 1931, at San Francisco on "The history and migration of the Monterey pine forests."

The annual year book of the Santa Barbara Museum of Natural History for 1931, recently issued, contains a report of the Blakesley Botanic Garden and other general data, as well as several good illustrations.

Dr. Geo. J. Peirce of Stanford University was elected President of the Botanical Society of America at the December, 1931, meeting in New Orleans.

"Vegetative changes and grazing use on Douglas Fir cut-over land" by Douglas C. Ingram, is a United States Forest Service publication. This paper is of interest to botanists. It discusses especially the changes in species and groups under the influence of grazing (Jour. Agr. Res. vol. 43, no. 5, 1931).